



College of Science and Technology

Information Communication Technology

Computer Science

Year 2

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Question 1:

```
#include <iostream>
```

```
int calculateCost(int start_hour, int end_hour) {  
    int amount = 0;  
    if ((start_hour < 0 || start_hour > 23) || (end_hour < 1 ||  
end_hour > 24)) {  
        return -1;  
    } else {  
        for (int hour = start_hour; hour < end_hour; hour++) {  
            if ((hour >= 0 && hour < 7) || (hour >= 21 && hour <  
24)) {  
                amount += 500;  
            } else if ((hour >= 7 && hour < 14) || (hour >= 19 &&  
hour < 21)) {  
                amount += 1000;  
            } else if ((hour >= 14 && hour < 19)) {  
                amount += 1500;  
            }  
        }  
    }  
    return amount;  
}
```

```
int main() {  
    int starting_hour;  
    int ending_hour;  
    // Write C++ code here
```

```

std::cout << "Enter starting hour: ";
std::cin >> starting_hour;
std::cout << "Enter ending hour: ";
std::cin>>ending_hour;

int amount = calculateCost(starting_hour, ending_hour);
if (amount == -1) {
    std::cout<<"The hours you entered are incorrect! The
hours should not exceed a day";
} else {
    std::cout <<"The amount to pay: "<<amount;
}

return 0;
}

```

Question 2:

```

#include<iostream>
using namespace std;

string identifyMushroom();

void askQuestion(string question, int& answer)
{
    cout<< question <<" (1 or 0): ";
    cin>>answer;
}

```

```
}
```

```
string identifyMushroom()
```

```
{
```

```
    int answer;
```

```
    string mushroom;
```

```
    //ask about gills and pores
```

```
    askQuestion("Does your mushroom have gills?", answer);
```

```
    if(answer == 1)
```

```
    {
```

```
        //ask about forest and meadow
```

```
        askQuestion("Does your mushroom grow in forest?",  
answer);
```

```
        if(answer == 1)
```

```
        {
```

```
            //ask about convex cap
```

```
            askQuestion("Does your mushroom have a convex  
cap?", answer);
```

```
            if(answer == 1)
```

```
            {
```

```
                //ask about ring
```

```
                askQuestion("Does your mushroom have a  
ring?", answer);
```

```
                if(answer == 1)
```

```
                {
```

```
                    mushroom = "Amanite tuemouche";
```

```
                }
```

```
            else
```

```

        {
            mushroom = "Pied bleu";
        }
    }
    else
    {
        mushroom = "Girolle";
    }
}
else
{
    //ask about convex cap
    askQuestion("Does your mushroom have a Convex
cap?", answer);
    if(answer == 1)
    {
        mushroom = "Agaric Jaunissant";
    }
    else
    {
        mushroom = "Coprin chevelu";
    }
}
}
else
{
    mushroom = "Cepe de bordeaux";
}

```

```
        return mushroom;
    }

int main()
{
    cout<<"\n\nThink a mushroom and answer the following
questions (1 for yes and 0 for no) to get the name of mushroom
you thought\n\n";

    string identifiedMushroom = identifyMushroom();

    cout<<"\n\nThe mushroom you have in mind is:
"<<identifiedMushroom <<endl;

    return 0;

}
```